IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

Applicant(s):	Ca et al.
Case:	3-2
Serial No :	09/876,568
Filing Date:	June 7, 2001
Group:	2134
Examiner:	Piotr Poltorak

Title: Method and Apparatus for Protecting a Device Connected to a Network

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REPLY BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
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Sir:

Appellants hereby reply to the Examiner's Answer, mailed January 30, 2007 (referred to hereinafter as "the Examiner's Answer"), in an Appeal of the final rejection of claims 1-32 in the above-identified patent application.

REAL PARTY IN INTEREST

A statement identifying the real party in interest is contained in Appellants' Appeal Brief.

RELATED APPEALS AND INTERFERENCES

A statement identifying related appeals is contained in Appellants' Appeal Brief.

STATUS OF CLAIMS

A statement identifying the status of the claims is contained in Appellants' Appeal Brief. Claims 1-3, 12-14, 17-19, 22-24, 31, and 32 are being appealed.

STATUS OF AMENDMENTS

A statement identifying the status of the amendments is contained in Appellants' Appeal Brief.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention is directed to a method (FIG 1: 300) and apparatus for detecting the removal of a device (FIG. 1: 110) connected to a network (FIG. 1: 100). The present invention generates an alarm on a protected device (FIG. 1: 110) when an unauthorized user disconnects the device (FIG. 1: 110) from a network (FIG. 1: 100) connection. (Page 2, line 24, to page 3, line 27.) The network (FIG 1: 100) connection is monitored and an alarm is generated if the protected device (FIG 1: 110) is disconnected from the network (FIG. 1: 100) connection without proper notification to the theft protection utility (FIG. 1: 300). (Page 4, line 8, to page 5, line 29.) A number of fail-safe features can optionally be employed to ensure that the theft protection aspects of the present invention are not bypassed. For example, the theft protection utility process can employ speaker, volume and/or power control features to ensure that the alarms generated by the present invention, or the theft protection feature itself, cannot be bypassed. (Page 4, line 24, to page 5, line 12.) In particular, the present specification discloses monitoring a network (FIG. 1: 100) connection (page 5, lines 13-29); and generating an alarm in a removed device (FIG. 1: 110) if the network (FIG. 1: 100) connection is disconnected (page 5, lines 25-29), discloses sending a message to a second device (FIG 1: 110) connected to a network (FIG. 1: 100) that will initiate a response; and generating an alarm in a removed device (FIG 1: 110) if a response is not received within a predefined time interval (page 5, lines 13-29), and discloses monitoring a signal received on a network (FIG. 1: 100) connection from a remote device (FIG. 1: 120) over the network (FIG. 1: 100) connection; and generating an alarm in a removed device (FIG. 1: 110) if said signal is no longer received (page 5, lines 13-29).

Independent claim 1 is directed to a method (FIG. 1: 300) for detecting removal of a device (FIG. 1: 110) connected to a network (FIG. 1: 100) by a network (FIG. 1: 100) connection, comprising: monitoring said network (FIG. 1: 100) connection (page 5, lines 13-29); and generating an alarm in said removed device (FIG 1: 110) if said network (FIG. 1: 100) connection is disconnected (page 5, lines 25-29).

In one exemplary embodiment, the volume of an audio output of said device (FIG. 1: 110) is prevented from being reduced below a predefined minimum level (page 5, lines 6-7).

In another exemplary embodiment, the device (FIG. 1: 110) is prevented from being turned off (page 5, lines 8-11).

Independent claim 12 is directed to a method (FIG. 1: 300) for detecting removal of a device (FIG. 1: 110) connected to a network (FIG 1: 100) by a network (FIG. 1: 100) connection, comprising: sending a message to a second device (FIG 1: 120) connected to said network (FIG. 1: 100) that will initiate a response; and generating an alarm in said removed device (FIG. 1: 110) if said response is not received within a predefined time interval (page 5, lines 13-29).

Independent claim 17 is directed to a method (FIG. 1: 300) for detecting removal of a device (FIG. 1: 110) connected to a network (FIG. 1: 100) by a network (FIG. 1: 100) connection, comprising: monitoring a signal received on said network (FIG 1: 100) connection from a remote device (FIG. 1: 120) over said network (FIG 1: 100) connection; and generating an alarm in said removed device (FIG. 1: 110) if said signal is no longer received (page 5, lines 13-29).

Independent claim 22 is directed to a system for detecting removal of a device (FIG 1: 110) connected to a network (FIG. 1: 100) by a network (FIG. 1: 100) connection, comprising: a memory that stores computer-readable code; and a processor operatively coupled to said memory, said processor configured to implement said computer-readable code, said computer-readable code configured to: monitor said network (FIG. 1: 100) connection (page 5, lines 13-29); and generate an alarm in said removed device (FIG. 1: 110) if said network (FIG 1: 100) connection is disconnected (page 5, lines 25-29).

Independent claim 31 is directed to an article of manufacture for detecting removal of a device (FIG. 1: 110) connected to a network (FIG. 1: 100) by a network (FIG. 1: 100) connection, comprising: a computer readable medium having computer readable code means embodied thereon, said computer readable program code which when executed implements the steps of: a step to monitor said network (FIG 1: 100) connection (page 5, lines 13-29); and a step to generate an alarm in said removed device (FIG. 1: 110) if said network (FIG 1: 100) connection is disconnected (page 5, lines 25-29).

Independent claim 32 is directed to a system for detecting removal of a device (FIG. 1: 110) connected to a network (FIG. 1: 100) by a network (FIG. 1: 100) connection, comprising: means for monitoring said network (FIG. 1: 100) connection (page 5, lines 13-29); and means for generating an alarm in said removed device (FIG. 1: 110) if said network (FIG. 1: 100) connection is disconnected (page 5, lines 25-29).

STATEMENT OF GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A statement identifying the grounds of rejection to be reviewed on appeal is contained in Appellants' Appeal Brief.

CLAIMS APPEALED

A copy of the appealed claims is contained in an Appendix of Appellants' Appeal Brief.

ARGUMENT

In the Response to Arguments section of the Examiner's Answer (pages 9-10), the Examiner notes that the phrase "indication of theft" is not present in the independent claims.

Appellants note, however, that the present claims are not only directed to detecting the disconnect of a network connection, but are also directed to detecting the ***"removal of a device,"*** as recited in the independent claims. In the context of the present invention, the detection of the removal of a device is indicative of a theft of the device. The Examiner's definition of an alarm (cited from the Computer Dictionary) may be appropriate for use in the context of the invention disclosed by Thurrott (since Thurrott is directed to alerting a "user when the machine is disconnected from the network"), but is not appropriate in the context of the present invention. (See, Network Disconnect Cue section.) As previously noted, however, a visual cue, as taught by Thurrott, that alerts ***a user*** of a machine is unlikely to be effective as an alarm to *alert one or more individuals to a theft*, as would be apparent to a person of ordinary skill in the art. As noted above, the present invention is directed to theft protection, and is thus ***not*** *directed to providing an alarm to the person in possession of the device*, but is directed to provide an alarm to, for example, other persons. Thus, an appropriate definition of an alarm in the context of the present invention is "an automatic device that serves *to call attention, to rouse*

from sleep, or to warn of fire, smoke, an intruder, etc." (See, dictionary.com) Thus, a person of ordinary skill in the art would not interpret the visual cue disclosed by Thurrott as an ***"alarm for indicating removal of a device."***

In the Response to Arguments section of the Examiner's Answer dated January 30, 2007, the Examiner asserts that the definition cited in the Computer Dictionary is consistent with common interpretation in the art (Shimizu et al., Low, and Kimura). Appellants note that, as is the case with the Thurott reference, these patents are directed to generating an alarm for a user of a machine who is in possession of the device. For example, a person of ordinary skill in the art would recognize that the alarm *buzzer* 12 disclosed by Kimura is *not* suitable for a *theft alarm*. The definition of an alarm utilized in these references is ***not*** *suitable for a theft alarm in the context of the present invention in reaction to removal of a device.*

In the Response to Arguments section of the Examiner's Answer (pages 10-11), the Examiner notes that, "reading Cromer's citation the remote computer system or server 34 as well as software application should be considered as matching the term 'the device' used in the claim language and the term should be considered distinct from 'a client' recited by Cromer."

Appellants note that both the Cromer patent and present disclosure are directed to, for example, the theft of computers. Cromer teaches many details about microcomputer system 10 (see, col. 3, line 32, to col. 6, line 46), and teaches that remote computer system 34 has components and attributes like those illustrated and described with regard to FIG. 3 (col. 6, line 64, to col. 7, line 10). Cromer teaches that "the system 10 has a power supply 17" (col. 3, line 53). A power supply is known in the art to require an external power source, as would be apparent to a person of ordinary skill in the art. Cromer, in fact, teaches that "the LAN adapter 94 is powered by auxiliary voltage (e.g., AUX 5) which is present ***so long as the system 10 is connected to AC power***." (Col. 7, lines 64-66; emphasis added.) *Cromer does* ***not*** *disclose or suggest that remote computer system or server 34 will continue to operate after it is removed and does* ***not*** *disclose or suggest that the invention will generate an alarm if the remote computer system or server 34 is removed.*

First, *disconnecting* the remote system or server from the network is ***not*** equivalent to *removing the remote computer system or server,* and thus the Examiner's suggestion that the remote computer system or server will generate a signal after being removed is pure speculation. A person of ordinary skill in the art would understand that a remote

computer system or server that has been removed is typically ***not*** capable of generating a signal, as removing a remote computer system or server typically also removes power from the device. This is especially true since Cromer teaches that, "if the software application does not get a response back after a *predetermined number of tries*, it indicates to the LAN administrator through a message that the client at this location is now not attached to the LAN." (Col. 7, lines 44-49.) In this case, Cromer teaches that there is a delay between the removal of a device and the indication to the LAN administrator.

In addition, Appellants note that the definition of an "alarm" utilized by the Examiner is "a signal, ***by display or audio device***." Cromer teaches that remote computer system or server 34 generates a message for the LAN administrator that the client at this location is now not attached to the LAN. (Col. 7, lines 44-49.) A message is not an alarm until, according to the Examiner's definition, it is displayed or audible. Thus, even if the remote computer system or server 34 generated a message, it is not clear that an alarm would be generated. The LAN administrator may, for example, be at a console that is no longer connected to remote computer system or server 34, and that therefore is no longer capable of receiving messages. (If the LAN administrator is using the remote computer system or server 34, it is unlikely to be stolen, as would be apparent to a person of ordinary skill in the art.)

Finally, the signal generated by the remote computer system or server cannot be considered an "alarm;" *at best, it is a signal to generate an alarm*. As noted above, an alarm is defined as "an automatic device that serves *to call attention, to rouse from sleep, or* to *warn of fire, smoke, an intruder, etc.*" Appellants maintain that the signal cited by the Examiner is *not an "alarm,"* as defined in the context of the present invention.

Thus, Thurrott and Cromer et al., alone or in combination, do not disclose or suggest generating an alarm in said removed device if said network connection is disconnected, as required by independent claims 1, 22, 31, and 32, do not disclose or suggest generating an alarm in said removed device if said response is not received within a predefined time interval, as required by independent claim 12, and do not disclose or suggest generating an alarm in said removed device if said signal is no longer received and a theft detection mode is enabled, as required by independent claim 17.

In the Response to Arguments section of the Examiner's Answer (page 15), the Examiner appears to equate "a predefined time interval" with not getting a response back "after a

predetermined number of retries." Appellants note, however, that Cromer does ***not*** disclose or suggest that the retries are conducted either periodically or within a predefined time interval and that, therefore, a person of ordinary skill in the art would not equate "a predefined time interval" with "a predetermined number of retries."

In the Response to Arguments section of the Examiner's Answer (pages 16-17), the Examiner asserts that preventing reduction of a volume below a predefined minimum level would have been obvious to one of ordinary skill in the art at the time of the invention given the fact that reducing the volume could defeat the purpose of the audio alarm implementation.

Appellants maintain that the reduction of a volume below a predefined minimum level is not obvious and that the prior art actually teaches away from the present invention by teaching to lower power consumption (i.e., lower the volume of audible devices, etc.) when a portable device is removed, for example, from an external power source, as would be apparent to a person of ordinary skill in the art.

In addition, contrary to the Examiner's assertion, preventing *silencing* is ***not*** equivalent to preventing the reduction of a volume *below a predefined minimum level,* and the cited prior art does not disclose or suggest a predefined minimum level. The fact that Sander, given the alleged special precautions cited by the Examiner, does not disclose or suggest preventing a volume of an audio output of the device from being reduced below a predefined minimum level is also evidence that the cited feature would *not* be obvious to one of ordinary skill in the art at the time of the invention.

Thus, Thurrott, Cromer et al., Sanders et al., Lam, Minasi, Pearce et al., and Sobell, alone or in any combination, do not disclose or suggest preventing a volume of an audio output of the device from being reduced below a predefined minimum level, as required by claims 2, 13, 18, and 23.

In the Response to Arguments section of the Examiner's Answer (page 18-20), the Examiner asserts that "extending Cromer's invention with preventing the device from being turned off would have been obvious to one of ordinary skill in the art at the time of applicant's invention." Regarding Sanders, the Examiner asserts that "not only does the alarm system device (Fig. 2-3, object 1010) have no output allowing the device to be turned off, but Sanders also explicitly discloses an internal battery power that prevents turning off the device by removal of a power cord (col. 11 lines 49-55)."

First, Appellants note that the prior art actually teaches away from the present invention by teaching to lower power consumption (i.e., turn off a device, or enter a stand-by state) when a portable device is removed, for example, from an external power source, as would be apparent to a person of ordinary skill in the art. Second, in the text cited by the Examiner, Sanders teaches that the

> theft detection and alarm system 1010 is also provided with power cord 184 having male plug 185 which is adapted to be plugged into a conventional power receptacle. Power cord (cable) 184 allows connection of theft detection and alarm system 1010 to an external source of AC or DC power. Theft detection and alarm system 1010 comprises power supply circuitry (not shown) which generates the voltages needed for the operation thereof. In a preferred embodiment, a rechargeable battery (not shown) is placed within theft detection and alarm system 1010. If power cord 184 is disconnected, the internal battery powers the components of theft detection and alarm system 101. Thus, the removal of power cord 184 does not disable theft detection and alarm system 1010.
> (Col. 11, lines 46-55.)

Contrary to the Examiner's assertion, Sanders does ***not*** disclose or suggest ***the step of*** *preventing said device from being* ***turned off***. As would be apparent to a person of ordinary skill in the art, a thief may attempt to turn off the device to disable the alarm.

Finally, Appellants could find ***no*** disclosure or suggestion in either Cromer or Minasi to combine the invention disclosed by Cromer and the user rights methods disclosed by Minasi.

Thus, Thurrott, Cromer et al., Sanders et al., Lam, Minasi, Pearce, and Sobell, alone or in any combination, do not disclose or suggest preventing said device from being turned off, as required by claims 3, 14, 19, and 24.

Conclusion

The rejections of the cited claims under sections 102 and 103 in view of Thurrott, Cromer et al., Sanders et al., Lam, Minasi, Pearce, and Sobell, alone or in any combination, are therefore believed to be improper and should be withdrawn. The remaining rejected dependent claims are believed allowable for at least the reasons identified above with respect to the independent claims.

The attention of the Examiner and the Appeal Board to this matter is appreciated.

Respectfully,

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APPENDIX

1. A method for detecting removal of a device connected to a network by a network connection, comprising:

monitoring said network connection; and

generating an alarm in said removed device if said network connection is disconnected.

2. The method of claim 1, further comprising the step of preventing a volume of an audio output of said device from being reduced below a predefined minimum level

3. The method of claim 1, further comprising the step of preventing said device from being turned off.

4. The method of claim 1, wherein said monitoring step is automatically activated in a passive manner

5. The method of claim 1, wherein said monitoring step is manually activated by a user

6. The method of claim 1, wherein said generating step can be prevented by entering a password.

7. The method of claim 1, wherein said monitoring step further comprises the step of sending a message to a remote device and awaiting a response.

8. The method of claim 1, wherein said monitoring step further comprises the step of receiving a message from a remote device.

9. The method of claim 1, wherein said monitoring step further comprises the step of receiving a signal from a remote device.

10. The method of claim 1, wherein said monitoring step further comprises the step of polling one or more local network ports on said device.

11. The method of claim 1, wherein said generating step is performed only if said network connection is disconnected by an unauthorized user.

12. A method for detecting removal of a device connected to a network by a network connection, comprising:

sending a message to a second device connected to said network that will initiate a response; and

generating an alarm in said removed device if said response is not received within a predefined time interval.

13. The method of claim 12, further comprising the step of preventing a volume of an audio output of said device from being reduced below a predefined minimum level.

14. The method of claim 12, further comprising the step of preventing said device from being turned off.

15. The method of claim 12, wherein said generating step can be prevented by entering a password.

16. The method of claim 12, wherein said generating step is performed only if said network connection is disconnected by an unauthorized user.

17. A method for detecting removal of a device connected to a network by a network connection, comprising:

monitoring a signal received on said network connection from a remote device over said network connection; and

generating an alarm in said removed device if said signal is no longer received.

18. The method of claim 17, further comprising the step of preventing a volume of an audio output of said device from being reduced below a predefined minimum level.

19. The method of claim 17, further comprising the step of preventing said device from being turned off.

20. The method of claim 17, wherein said generating step can be prevented by entering a password

21. The method of claim 17, wherein said generating step is performed only if said network connection is disconnected by an unauthorized user.

22. A system for detecting removal of a device connected to a network by a network connection, comprising:

a memory that stores computer-readable code; and

a processor operatively coupled to said memory, said processor configured to implement said computer-readable code, said computer-readable code configured to:

monitor said network connection; and

generate an alarm in said removed device if said network connection is disconnected.

23. The system of claim 22, wherein said processor is further configured to prevent a volume of an audio output of said device from being reduced below a predefined minimum level.

24. The system of claim 22, wherein said processor is further configured to prevent said device from being turned off.

25. The system of claim 22, wherein said processor is further configured to prevent said alarm by entering a password.

26. The system of claim 22, wherein said processor is further configured to send a message to a remote device and await a response.

27. The system of claim 22, wherein said processor is further configured to receive a message from a remote device.

28. The system of claim 22, wherein said processor is further configured to receive a signal from a remote device.

29. The system of claim 22, wherein said processor is further configured to poll one or more local network ports on said device.

30. The system of claim 22, wherein said processor is further configured to generate said alarm only if said network connection is disconnected by an unauthorized user.

31. An article of manufacture for detecting removal of a device connected to a network by a network connection, comprising:

a computer readable medium having computer readable code means embodied thereon, said computer readable program code which when executed implements the steps of:

a step to monitor said network connection; and

a step to generate an alarm in said removed device if said network connection is disconnected.

32. A system for detecting removal of a device connected to a network by a network connection, comprising:

means for monitoring said network connection; and

means for generating an alarm in said removed device if said network connection is disconnected.

EVIDENCE APPENDIX

There is no evidence submitted pursuant to § 1.130, 1.131, or 1.132 or entered by the Examiner and relied upon by appellant.

RELATED PROCEEDINGS APPENDIX

There are no known decisions rendered by a court or the Board in any proceeding identified pursuant to paragraph (c)(1)(ii) of 37 CFR 41.37.